DECEMBER 2006

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GREEN LODGING MICHIGAN PROGRAM CERTIFIES FIRST SIX FACILITIES

The Michigan Energy Office introduced its new Green Lodging Michigan (GLM) program at the October meeting of the Michigan Society of Government Meeting Professionals. GLM is a joint effort by the Michigan Energy Office and the Michigan Department of



Environmental Quality encourage the lodging industry to conserve and protect the state's natural resources while increasing marketability and lowering utility costs. The program is a voluntary, non-regulatory effort established to provide certification and assistance to lodging facilities that make special efforts to protect the environment and conserve natural resources.

Hotels and motels that implement "green" practices have also found that they can save money and generate good publicity. Environmental tourism has grown exponentially over the past 10 years. A survey of U.S. travelers found that 87 percent would be more likely to stay at "green" properties. There are 43 million people in the U.S. who are self-proclaimed "eco-tourists."

Facilities are certified at different levels based on meeting basic requirements and a number of additional environmental initiatives. The environmental initiatives are in seven categories: communication and

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education, energy efficiency, air quality, solid waste reduction, toxic and hazardous waste, water conservation, and purchasing.

There are three levels of certification that can be earned: Partner, Steward and Leader. The first six facilities that have earned Green Lodging Michigan certification include two partners: Bayshore Resort, which is located on the sandy beaches of West Grand Traverse Bay, and the Wren's Nest, a bed and breakfast located in West Bloomfield. The next highest level of certification is Steward. Four have earned Steward certification: Crystal Mountain, located in picturesque northwest lower Michigan, Livonia Marriott, located just outside of Detroit, the 100 year old Neahtawanta Inn, a bed and breakfast located on the Old Mission Peninsula in Grant Traverse Bay, and the Department of Natural Resources' Ralph A. MacMullan Conference Center, located on the northern shores of Higgins Lake. As facilities are certified, they will be added to the GLM web site at www.michigan.gov/greenlodging. Think Green when you travel!



MICHIGAN BUSINESS POLLUTION PREVENTION PARTNERSHIP (MBP3)

The MBP3 continues its course of healthy growth with new partners joining the ranks of pollution prevention, energy efficiency and environmental stewardship. As with past years, the MBP3 continues to grow and expand, despite economic challenges, into new areas and business sectors. The realization that both the environment and the bottom line benefit from pollution prevention activities has taken hold throughout Michigan. The partnership currently has 326 registered partners located in 129 different cities representing 47 counties. Based on a review of accomplishments and successes from MBP3 members, the partnership continues to mature and focus on varying aspects of pollution prevention including waste reduction, energy efficiency, water conservation, green chemistry, and recycling. The past years projects have focused on cost effectiveness and positive bottom line performance.

Recent additions to the partnership include:

- * Dr. Shrink, Inc. (Manistee)
- * Maine Plastics, Inc. (Schoolcraft)
- * Landfill Avoidance Systems, LLC (Birmingham)
- * Bata Plastics, Inc. (Byron Center)
- * The Creation Station (Lansing)
- * The Brown Company of Ionia, LLC (Ionia)
- * Sustainable Research Group (Grand Rapids)
- * Global Engine Manufacturing Alliance (Canton)
- * Ventura Manufacturing (Zeeland)
- * MACSTEEL MONROE (Monroe)
- * Fort Custer Training Center (Battle Creek)
- * Michigan State University (East Lansing)

- * Detroit Diesel Corporation (Detroit)
- * Kettering University (Flint)
- * Surplus Coatings (Grandville)

As Michigan establishments are continually challenged to do more with less, it is particularly important that the MBP3 continues to grow and expand its offering of services and information. The main benefit to partners' involvement is access to the partnerships electronic network of companies and individuals representing virtually all business, environmental, and community sectors. This network provides for an increasingly broad and comprehensive body of knowledge that is available to all participants.

For more information on initiating or expanding your pollution prevention programs, or to discuss how your facility can benefit from this valuable partnership, contact **Jeff Spencer** at **517-241-5719** or **spencejl@michigan.gov**.

For complete information on the MBP3 Program including Annual Reports, Registration and current partners listing, visit **www.michigan.gov/deqp2partnerships**, then scroll down to MI Business P2 Partnership.

INVENTORY UPDATE REPORTING DEADLINE IS DECEMBER 23, 2006

Manufacturers and importers of certain chemicals must report on the manufacture, import and use of these chemicals under the Inventory Update Reporting (IUR). Information from calendar year 2005 must be reported during the 2006 IUR submission period to the Environmental Protection Agency (EPA) for chemicals which exceed a threshold. Reports must be submitted between August 25 and December 23, 2006 using the Form U. New for the 2006 submission period is the reporting of inorganic chemicals as well as organic chemicals.

There are more than 80,000 chemicals currently on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory that must be reported. A searchable database of chemicals can be found on the Internet at http://msds.ehs.cornell.edu/, then click on Toxic Substances Control Act.

Information on the Inventory Update Reporting can be found on the Internet at www.epa.gov/oppt/iur. This includes documents, tools and resources. The EPA has developed an IUR reporting tool which can be downloaded and includes an electronic Form U for reporting through the Internet via the EPA Central Data Exchange (CDX). Facilities that established a CDX account for reporting the Toxic Chemical Release Inventory (TRI) can use this account for the electronic Inventory Update Reporting (eIUR); go to www.cdx.epa.gov and select "current CDX user," follow the prompts and add the eIUR program.



General questions about the IUR requirements should be sent to Susan Sharkey of the US EPA at **sharkey.susan@epa.gov**. For assistance in completing the Form U, contact the TSCA Hotline at **202-554-1404** or E-mail to **TSCA Hotline@epa.gov**.

Facilities should submit either through the Internet via CDX or by hand delivery. Do not send your submission by US Mail as mail to government offices are irradiated and this process is causing damage to IUR submissions on paper and CD-ROM. More information can be found on the IUR website under "Reporting Options and Deadline."



EPA PRESENTS SUCCESS STORY AWARD TO EARTH KEEPERS

CHICAGO (Nov. 20, 2006) - U.S. Environmental Protection Agency Deputy Administrator Marcus Peacock recently presented a Success Story Award to Upper Michigan's Earth Keepers for environmental stewardship. Superior Watershed Partnership Director Carl Lindquist accepted on behalf of the group at the 2006 State of the Lakes Ecosystem Conference (SOLEC) awards dinner in Milwaukee, Wisconsin.

Earth Keepers, a collaboration of over 150 congregations from nine different faiths, organized the collection of household hazardous waste in 30 church parking lots across the entire Upper Peninsula in April 2005 using an EPA Environmental Justice grant. The Earth Day effort collected 46 tons of herbicides, pesticides, car batteries, items containing mercury, drain cleaners, anti-freeze, and old lead- and oil-based paints and transferred it to appropriate disposal locations.

In 2006, Earth Keepers organized an electronics equipment recycling event and collected and properly disposed of more than 320 tons of e-waste materials. In the future, the group plans a mercury thermometer exchange on tribal lands, community education on pharmaceutical disposal and burn barrel hazards, and outreach to dentists on amalgam separators.

The SOLEC Success Story Awards are presented every two years to groups in government, industry, not-for-profit, non-governmental environmental groups, and First Nations and Tribes that exemplify a strong commitment to improving the environment of the Great Lakes basin. Criteria for the award include strong partnerships, broad community involvement, and demonstrated success.

Earth Keepers is one of seven award recipients for 2006. Other Michigan Success Story Award winners are the Pulp and Paper Environmental Council and the Muskegon community's Ruddiman Creek sediment cleanup organizations.

EPA PRESENTS SUCCESS STORY AWARD TO MUSKEGON COMMUNITY ORGANIZATIONS FOR RUDDIMAN CREEK PROJECT

CHICAGO (Nov. 21, 2006) - U.S. Environmental Protection Agency Deputy Administrator Marcus Peacock presented a Success Story Award to Muskegon, Michigan, community organizations for their involvement in a the recently completed Great Lakes Legacy Act sediment cleanup of Ruddiman Creek.

Team members from Muskegon Lake Public Advisory Committee and the Ruddiman Creek Task Force accepted plaques at the 2006 State of the Lakes Ecosystem Conference (SOLEC) awards dinner in Milwaukee, Wisconsin, November 1. Other Ruddiman Creek awardees will receive plaques from Marc Tuchman of the EPA Great Lakes National Program Office at a ceremony November 27 at the Muskegon Lake Public Advisory Committee meeting. They include: the city of Muskegon, Illinois/Indiana Sea Grant, Michigan Department of Environmental Quality-Water Bureau, Grand Valley State University-Annis Water Resources Institute and the U.S. Army Corps of Engineers Detroit District.

The Great Lakes Legacy Act Ruddiman Creek and Pond sediment cleanup in the Muskegon Lake Area of Concern began years ago with a grassroots community effort to address contamination in Lake Michigan that was harming recreation and development. The partners worked with state and federal agencies to plan and fund the sediment cleanup. Completion of the project is an important step toward the removal of the Muskegon Lake Area of Concern from the list of Great Lakes impaired sites.

The SOLEC Success Story Awards are presented every two years to groups in government, industry, the not-for-profit and non-government environmental sectors and tribes that exemplify a strong commitment to improving the environment of the Great Lakes basin. Criteria for the award include strong partnerships, broad community involvement and demonstrated success.

The Ruddiman Creek project is one of seven award recipients for 2006. Other Michigan Success Story Award winners are Earth Keepers in the Upper Peninsula and the Pulp and Paper Environmental Council.

MICHIGAN REVISES EMERALD ASH BORER QUARANTINE TO PREVENT FURTHER SPREAD OF BEETLE

All areas where pest is known to exist now quarantined Michigan Department of Agriculture (MDA) Director Mitch Irwin today announced an amendment of the state's Emerald Ash Borer (EAB) quarantine to prevent the further spread of the exotic insect and keep the Upper Peninsula free of EAB. Effective immediately, Michigan's EAB quarantine has been revised to include two levels in the Lower Peninsula. The two-level quarantine maintains the existing 21-county quarantined



area of Southeast Michigan as Level I and the balance of the Lower Peninsula as Level II. Level I represents that area of the state that is generally infested with EAB and Level II has scattered but isolated infestations.

"Michigan's natural resources are at risk," said Irwin. "We want to minimize the impact of EAB across the state as much as possible. We think the two-level quarantine will help us accomplish this goal by not allowing the movement of ash materials or hardwood firewood from the quarantined area of Southeast Michigan to any other area of the Lower Peninsula or the movement of any ash material or hardwood firewood out of the Lower Peninsula."

The movement of hardwood firewood is still prohibited from leaving quarantined areas, and remains to be the leading cause of the spread of EAB. Firewood can also vector other destructive pests such as Asian long-horned beetle, oak wilt and beech bark disease.

"Our ability to regulate the movement of hardwood firewood in the Lower Peninsula is crucial to preventing the artificial spread of EAB into other areas of Michigan and surrounding states," said Ken Rauscher, Director of the Pesticide and Plant Pest Management Division. "It's imperative citizens comply with the state's quarantine and not transport firewood if we are to be successful."

Individuals or businesses found violating the state's EAB quarantine are subject to fines ranging from \$1,000 to \$250,000 and jail time of up to five years for moving regulated ash materials, including firewood.

Additional information about EAB, and a map of the quarantine boundaries will be available online at **www.michigan.gov/eab** or **www.emeraldashborer.info**. You may also contact your regional MDA office, or your local Michigan State University Extension or conservation district office.

CORRECTION FOR MANUFACTURERS GUIDEBOOK ON BURNING USED OIL

Pages 2-44 and 2-45, in Chapter 2 of the Michigan Manufacturers Guide for Environmental, Safety and Health Regulations has incorrect information about when an air permit is needed to burn used oil in space heaters or furnaces. The guide is available at www.michigan.gov/deqmanufactguide.

Any facility that burns used oil received from do-it-yourselfers, and any other used oil that is not generated on the geographical site, will need to obtain an Air Quality Division (AQD) permit. This is because the state's Part 55 air regulations do not include a specific exemption from the air permit even though there are exemptions under the federal and state waste regulations. Please contact the AQD District Office to discuss your situation. District office locations can be found at www.michigan.gov/deq/0,1607,7-135-3306_3329-12306—,00.html.

ASTHMA RESOURCE FOR INGHAM COUNTY

Healthy Homes University is now enrolling Ingham County families with children suffering from asthma and other respiratory illness!

What is Healthy Homes University? We are a new program with the Michigan Department of Community Health that is committed to reducing preventable injuries and triggers in the home that affect children with asthma and other respiratory illness. We will be helping at least 300 families over the next three years.

Who is eligible? Ingham County families in low to moderate income households with children under 18 years old with asthma or other respiratory illness.

What is the cost? Absolutely FREE!

What can we do to help? We will inspect your home and install products to help prevent injuries and reduce home triggers affecting a child's asthma or other respiratory illness. Over six months, we will teach each family how to use the products they are given to make the home healthier for their family.

How do you refer a family or get started? Please contact **Linda Stewart**, Assistant Project Coordinator, **517-335-8867** or E-mail at **stewartlin1@michigan.gov**

DEARBORN WINS EPA PISCES AWARD

USEPA announced in November the winners of its 2nd annual Performance and Innovation in the SRF Creating Environmental Success (PISCES) awards. Dearborn won this award based not only on its use of a highly innovative technology using vertical capture shafts for capture and treatment of combined sewer overflows, but also based on its exemplary financial integrity in managing its Clean Water State Revolving Funds loans, and its steady progress and commitment to addressing all of its 22 combined sewer overflows.

In the 1990's Dearborn had attempted to address these overflows with a tunnel, but was severely hampered by difficult hydrogeological conditions. Following years of additional studies, the city decided to try the capture shafts. Four shafts are currently under construction, and a fifth outfall is being addressed by modifying shafts from the abandoned tunnel project. Five more shafts are planned to be constructed over the next three years to address the remaining outfalls.

In total, a cost reduction of \$150 million was documented over the course of the planning efforts. In addition, the shaft construction, utilizing sinking caissons, has been able to successfully mitigate against possible negative impacts from adverse soil and rock conditions and hydrogen sulfide which occurs under artesian condition within the underlying rock formation 100 feet below ground surface.



SCRAP METAL SCAMS

Companies should be aware that there have been problems at other Michigan facilities due to scams and theft of scrap and other metals from their properties. See the complete scam alert posted on the Michigan Manufacturers Association (MMA) website at www.mma-net.org/newsinfo/news.asp?NEWSID = 1527.

Companies lose money when others remove these metals from their facilities without compensating them for it. Confirm that any metal recyclers you are considering using are not scam operations. Established recyclers often advertise in the yellow pages under the heading "Scrap Metal" or see the DEQ Recycled Materials Market Directory at www.michigan.gov/deqrmmd.

MMA has notified the Michigan Attorney General's office about the scrap metal fraudsters that are making appearances across the state. If you believe a crime has been committed — for instance, if some scrap has been stolen from your property, particularly if you have recently been visited by a person or group offering recycling services — you may want to notify your local law enforcement agency. You may also want to contact MMA by E-mail **communications@mma-net.org**, or call **517-487-8543**, if you have experienced a similar situation so that they can keep members informed.

COMPLIANCE ASSISTANCE CORNER

DISSOLVED OXYGEN

The Department of Environmental Quality (DEQ) often receives inquiries from the public related to dissolved oxygen (D.O.) and its role in water bodies. D.O. is a very important indicator of a water body's ability to support aquatic life. Aquatic organisms "breathe," or respire, by absorbing D.O. through their gills. The amount of oxygen dissolved in water is expressed as a concentration, that is, mass of oxygen in a volume of water. D.O. concentration is commonly expressed in milligrams per liter (mg/l) or parts per million of water. In general, within the state of Michigan our rivers, lakes, and streams are protected to provide for D.O. levels between 5 and 7 mg/l. Certain streams that support more D.O.-sensitive fish species are protected for higher concentrations of D.O.

Various things can impact D.O. levels in a water body. Oxygen enters the water directly from the atmosphere, and from higher plants and algae living in the water that produce oxygen through a process called photosynthesis when exposed to sunlight. When air is introduced into water (through mixing such as at a waterfall or through wave action), more oxygen will dissolve in the water, a process known as aeration. Conversely, oxygen is removed from the water by the respiration of fish, other aquatic life and plants; and also by bacteria that decompose organic matter. Organic materials may be man-made, such as sewage, or natural, such as leaf litter. As D.O. levels in water drop below a certain level, aquatic life is put under stress; the lower the D.O. concentration, the greater the stress. Oxygen levels that remain below 1-2 mg/l for a few hours can result in large fish kills.



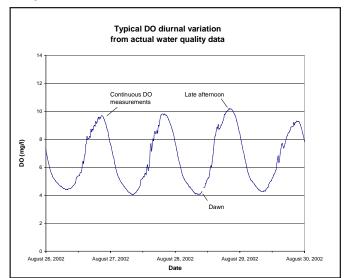
department personnel in ESSD that specialize in another environmental program division. Staff provide one-on-one and referral assistance on calls received by the Environmental Assistance Center. If you have any environmental question on which you need assistance, call 1-800-662-9278.

The amount of D.O. that a given organic material will consume when it decays in a water body can be measured, and this is called biochemical oxygen demand (BOD). When organic materials with high BOD, such as manure, pet wastes, leaves, and grass clippings, enter a lake or stream, they are broken down by bacteria. The decomposition process reduces oxygen levels in the water.

Concentrations of D.O. vary naturally throughout the day and night. During photosynthesis, which occurs only during times of sunlight, oxygen dissolves into the water column, increasing D.O. concentrations. Plants also respire throughout the day and night, consuming D.O. During the day, oxygen production from photosynthesis generally outpaces D.O. consumption due to respiration, causing D.O. concentrations to rise. However, photosynthesis ceases at night while respiration continues, causing D.O. levels to fall. Therefore, the highest concentrations of D.O. are usually found in the late afternoon or evening, and the lowest are found in the early morning just before sunrise. This natural fluctuation of D.O. during the day and night is referred to as D.O. diurnal variation. See Figure 1 below.

Figure 1 shows a situation where a lot of plant activity is taking place. In fact, so much D.O. is consumed by respiration at night that D.O. concentrations fall below the water quality standard of 5 mg/l. This is not an uncommon occurrence and it can happen where conditions are right for rooted aquatic plant and algae growth, such as in wide, unshaded, shallow streams. The river depicted in Figure 1 is also relatively slow and sluggish with low rates of aeration, contributing to the naturally occurring standard nonattainment.

Figure 1



Some factors that can affect D.O. concentrations include:

<u>Factor</u>	<u>Higher D.O.</u>	Lower D.O.
Cold water	X	
Warm water		X
Slow moving streams, impoundments		X
Fast moving streams/waterfalls/aeratio	n X	
Daytime photosynthesis of plants/algae	e X	
Nighttime respiration of plants/algae		X
Presence of organic matter (BOD)		X

D.O.-consuming pollutants can be discharged by point sources like wastewater treatment plants, and they can be washed into streams from fields, pavement, etc., usually during rain events. This latter form of contamination is known as nonpoint source (NPS) pollution. The DEQ manages point source dischargers in Michigan through a permit program called the National Pollutant Discharge Elimination System (NPDES). Permit limits for oxygen demanding wastes ensure that the D.O. water quality standard will be attained. A violation of a permit limit may result in nonattainment of the water quality standard. NPS pollution is controlled through programs administered by state and local agencies. These programs encourage the use of management practices, such as planting vegetative buffer zones along waterways that reduce NPS pollutant inflows.

You can learn more about the NPDES Program by reviewing "A Citizen's Guide to Water Quality Permitting." This guide can be found on the DEQ's Web page at **www.michigan.gov/deq** under the "Get Involved! Programs for Citizens" section or you can request a copy from our **Environmental Assistance Center** at **800-662-9278**. Information about Michigan's NPS Program can also be found on DEQ's Web page.



EVENTS

JANUARY 9, 2007

MICHIGAN AIR EMISSIONS REPORTING SYSTEM (MAERS) REFRESHER COURSE, LANSING COMMUNITY COLLEGE, WEST CAMPUS, LANSING, MICHIGAN. The Michigan Department of Environmental Quality (MDEQ) is pleased to offer an "early-bird" MAERS two-hour refresher course for those who are familiar with completing MAERS reports and just need a refresher. The session will provide a review of the basic MAERS concepts and highlight changes and new features. In addition to getting a jump start on training, attendees will receive an advance copy of the MAERS version 2006.0.0 software, which is normally sent to subject facilities in mid-January. Attendees will also receive an advance copy of the MAERS Workbook and other guidance materials. This class will NOT be held in a computer lab; therefore, attendees are encouraged to bring their own laptop to the class. Online registration is available on the Web at www.michigan.gov/deqworkshops, click on "Upcoming DEQ Workshops." Registration fee is \$50. Registration Information Contact: Environmental Assistance Center, 800-662-9278, or E-mail at deg-ead-envassist@michigan.gov. Information Contact: Jim Ostrowski, Environmental Science and Services Division, 517-241-8057, or E-mail at ostrowsi@michigan.gov. Please note: The MDEQ will continue to offer the more detailed Introduction to MAERS training in February 2007 at various locations throughout the state. The Introduction to MAERS training is geared to those who have never completed a MAERS report before or those who need more comprehensive training on the concepts and software.

JANUARY 2007

SARA TITLE III TIER TWO WORKSHOPS, VARIOUS LOCATIONS, MICHIGAN. Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III), also known as the Emergency Planning and Community Right-To-Know Act, requires facilities to report information that can be vital to the community's safety. Over 6,000 facilities in Michigan annually submit Tier Two hazardous chemical inventory reports required by SARA Title III to the State Emergency Response Commission (SERC), Local Emergency Planning Committees (LEPCs), and local fire departments. IMPORTANT ANNOUNCEMENT: Tier Two reports will be submitted online in 2007! The Michigan Department of Environmental Quality's Environmental Science and Services Division presents the SARA Title III Tier Two workshop, where attendees will learn how to complete and submit the online Tier Two report. SARA Title III emergency planning notification requirements and chemical release reporting requirements in Michigan will also be addressed. This half-day workshop is recommended for owners, operators, and environmental and safety personnel of facilities that have hazardous materials (material safety data sheets required by OSHA) on site. Environmental consultants, LEPCs, and fire department personnel can also benefit from this workshop and are encouraged to attend. A full brochure and online registration will be available on the Web in early November at www.michigan.gov/deqworkshops, click on "Upcoming DEQ Workshops." Registration fee is \$50. Registration Information Contact: Environmental Assistance Center, 800-662-9278, or E-mail at deq-ead-env-assist@michigan.gov. Information Contact: Susan Parker, Environmental Science and Services Division, 517-335-4650, or E-mail at parkerse@michigan.gov.

<u>Date</u>	<u>Location</u>
1/16/07	Hotel Baronette, Novi
1/18/07	Prince Conference Center at Calvin College, Grand Rapids
1/23/07	Mt. Pleasant Comfort Inn & Suites, Hotel & Conference Center, Mt.
	Pleasant
1/25/07	Lansing Community College - West Campus, Lansing

FEBRUARY 2007

2007 INTRODUCTION TO MAERS WORKSHOP (MICHIGAN AIR EMISSIONS REPORTING SYSTEMS), VARIOUS LOCATIONS, MICHIGAN. The 2007 Introduction to MAERS Workshop takes participants step by step through the new MAERS version 2006.0.0 software on computers. This hands-on training is designed for those who are new to MAERS or those who need more comprehensive training on the concepts and software. Workshop participants will learn MAERS software basics, how to complete the electronic forms and submit your report to DEQ, and how to avoid common mistakes encountered when completing and submitting your MAERS report. Workshop attendees will receive the "MAERS Workbook" and other guidance materials. If you plan on attending the Lansing session, you are encouraged to bring your laptop as only a limited number of computers will be available at that site. Registration fee: \$75. A full brochure and online registration form will be available on the Web by late November at www.michigan.gov/deqworkshops, click on "Upcoming Workshops." Registration Information: Environmental Assistance Center, 800 662 9278, or E-mail at deq-ead-env-assist@michigan.gov. Information

JANUARY 2007

FEBRUARY 2007

Contact: **Jim Ostrowski**, Environmental Science and Services Division, **517-241-8057**, or E-mail at **ostrowsj@michigan.gov**. Please note: The MDEQ is offering a refresher course on January 9th geared to those who are already familiar with completing the MAERS report.

DateLocation2/2/07 - AM Session ONLYMTEC at Kirtland-Gaylord, Gaylord2/8/07 - AM and PM SessionsKent ISD, Grand Rapids2/13/07 - AM and PM SessionsVisTaTech at Schoolcraft College, Livonia2/20/07 - AM Session ONLYLansing Community College, West Campus,
Lansing*

FEBRUARY 2007

FEBRUARY 12, 2007

WATERSHED-BASED PLANNING: HOW TO DEVELOP PLANS THAT MEET FEDERAL AND STATE REQUIREMENTS, COMFORT INN & CONFERENCE CENTER, MT. PLEASANT, MICHIGAN. The importance of basin-wide management has been underlined by recent guidance from the U.S. Environmental Protection Agency (EPA) and the Michigan Department of Environmental Quality (DEQ) which calls for watershed-based plans for all projects supported by competitive funding from the Clean Water Act Section 319 program. This workshop will examine the watershed planning process and the product, focusing on how EPA's Nine Minimum Elements fit into the overall watershed planning process. This workshop is intended for watershed group members and managers, public agency staff, planners, consultants, and others active in the water resources planning field. A full brochure and online registration will be available on the Web by early December at www.michigan.gov/deqworkshops, click on "Upcoming DEQ Workshops." Registration fee is \$25. Registration Information Contact: Environmental Assistance Center, 800-662-9278, or E-mail at deq-ead-env-assist@michigan.gov. Information Contact: Bob Sweet, Environmental Science and Services Division, 517-335-6967 or E-mail at sweetr@michigan.gov.

MARCH 2007

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MEECS (MICHIGAN ENVIRONMENTAL EDUCATION CURRICULUM SUPPORT)
TRAINING WORKSHOPS, VARIOUS LOCATIONS, MICHIGAN. The Michigan Department of Environmental Quality is pleased to announce that Michigan is among only a handful of states to create its own environmental education curriculum, known as the MEECS. This project is designed to provide students in grades four through nine with an opportunity to learn about their environment through five different curriculum units: Air Quality, Ecosystems & Biodiversity, Energy Resources, Land Use, and Water Quality. Over 180 teacher training MEECS workshops have been scheduled. A full brochure with workshop dates, times, and locations is available on the Web at www.michigan.gov/deq-meecs. Please check for updates on the MEECS website, as more workshops are scheduled. Registration Fee: Low cost/no cost - varies by location. Registration Information: Varies by location; see Web brochure. Information Contact: Thomas Occhipiti, Executive Division, 517-373-2379, or E-mail at occhipit@michigan.gov.

<u>Date Topic</u> <u>Location</u>
3/15/07 Air MSTA Conference, Amway Grand Hotel, Grand Rapids
3/15/07 Water MSTA Conference, Amway Grand Hotel, Grand Rapids

^{*} For the Lansing workshop, registrants are encouraged to bring their own laptops.

3/15/07	Land	MSTA Conference, Amway Grand Hotel, Grand Rapids
3/15/07	Ecosystems	MSTA Conference, Amway Grand Hotel, Grand Rapids
3/15/07	Energy	MSTA Conference, Amway Grand Hotel, Grand Rapids

MARCH 13-14, 2007

2007 MICHIGAN AGRI-ENERGY CONFERENCE, HOLIDAY INN SOUTH, LANSING, MICHIGAN. Join farmers, service providers, rural and agricultural leaders, researchers, and state policy makers to learn more about the latest trends in alternative energy solutions at the 2007 Michigan Agri-Energy Conference. National and local experts will reveal ways you can improve your bottom line by capitalizing on the potential of renewable sources like wind and solar, biomass, bio-fuels and bio-products. Online registration will be available by early January at www.michigan.gov/deqworkshops, click on "Upcoming DEQ Workshops." Registration Information Contact: Environmental Assistance Center, 800-662-9278, or E-mail at deq-ead-env-assist@michigan.gov. Information Contact: Terri Novak, Environmental Science and Services Division, 517-930-3170, or E-mail at novaktl@michigan.gov.

MARCH 15-16, 2007

MICHIGAN SCIENCE TEACHERS ASSOCIATION 54TH ANNUAL CONFERENCE, SCIENCE OUT OF THE BOX, AMWAY GRAND HOTEL AND DEVOS CENTER, GRAND RAPIDS. The Michigan Department of Environmental Quality (DEQ) is holding five Michigan Environmental Education Curriculum Support (MEECS) training workshops at this conference on March 15, 2007. Registration Fee: \$25. The DEQ will also hold an overview informational session on the MEECS curriculum during the conference on March 16, 2007. Throughout the conference, the DEQ will exhibit a booth to display MEECS general information. Information Contact: Thomas Occhipinti, Executive Division, 517-373-2379, or E mail at occhipit@michigan.gov.

MARCH 2007

MARCH 2007

If you are interested in participating in the development of any Environmental Science and Services Division event, please call Mary Goodhall, 517-241-7968 or E-mail goodhalm@michigan.gov.